

United States Department of Agriculture
Agricultural Research Administration
Bureau of Entomology and Plant Quarantine
and
Bureau of Animal Industry

ROTENONE REDUCED IN DUSTS FOR CATTLE GRUB TREATMENTS

Treatments of cattle made for control of cattle grubs show that rotenone dusts mixed with tripoli earth or with pyrophyllite are more efficient than those made with talc and sulfur, because they penetrate the hair better and also because twice as many animals or more can be treated with the same amount of derris. The results obtained with these dust mixtures in Wyoming were comparable to those obtained in Texas and Florida. They show that the northern animals with thick coats of hair are treated just as effectively as are the animals with short hair. It was also found that mixtures of ground cube were as effective as those made with ground derris root when the dusts contained the same percentage of rotenone.

When applied with a shaker can, an average application of 2 to 3 ounces of the mixed powder is sufficient for a single treatment of an animal with a heavy coat of hair. The can or jar is provided with a close-fitting top in which about 15 holes, one-fourth inch in diameter, are punched outward through the lid. At the time the dust is applied, one hand is used to ruffle the hair. This permits the dust to penetrate the hair and enter the openings of the cysts that contain the grubs. The success of the treatment is dependent upon the thoroughness with which the powder is worked into the hair. In the use of such a method two men working on opposite sides of a chute have treated 100 cattle in an hour. Because of the excellent results obtained with pyrophyllite and tripoli earth as dry diluents, either of these materials is recommended for use in dusts for cattle grub control and as a means of greatly extending the use of the available rotenone.

Formula for Making Dusts with Pyrophyllite or Tripoli Earth

Ground cube or derris (5 percent rotenone).	1 part by weight
Tripoli earth <u>1</u> / (200-mesh fineness).	3 parts by weight
or	
Ground cube or derris (5 percent rotenone).	1 part by weight
Pyrophyllite <u>2</u> / (325-mesh fineness).	4 parts by weight

1/ The tripoli earth to be used is that known as standard double-ground rose tripoli.

2/ The pyrophyllite found satisfactory is that commercially known as Pyrax ABF.

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